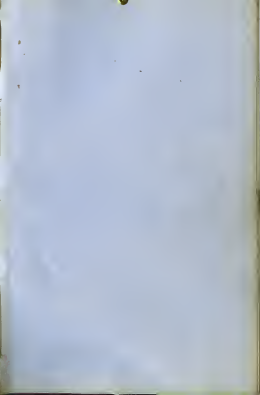




Notebook of  
George K. Gibbs  
who worked for  
Pippenger for 6 years  
and was Superintendent  
for 30 years, from  
1881-1919.

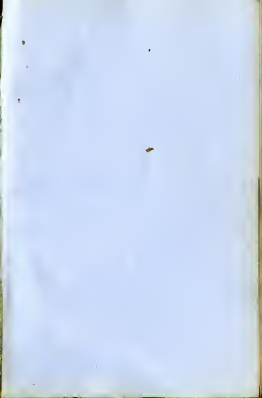
This notebook was  
made up by him when  
he took office in 1881.  
It shows Pippenger's equipment  
as it was then. Gift of  
his son, August Gibbs.

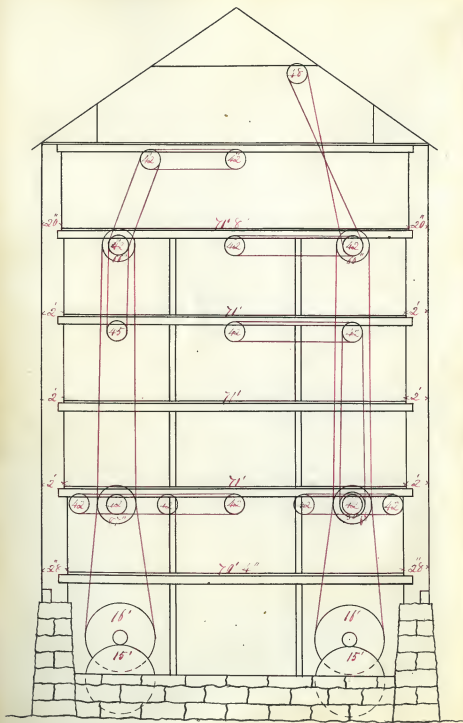


Mrs. Yarker.

Please keep the box with in reach  
for the time being.

T.G.





No. 1. Mill.

# Machinery in N<sup>o</sup> 1 Mill

8 Breast Water Wheels 42.46 Horse Power each  
Total 339.68 Horse Power

Openers	1 Greighton
Pickers	X 2 Treacher & 3 Thompson
Breaker Cards	<del>42</del> 96
Railway Heads	12 ✓
Lap Winders	2 ✓
Finisher Cards	<del>80</del>
Railway Heads	12
Drawing Frames	8
Speeders	9 12-24 Spindles each
Extensors	12 12-60 " "
Stubbers	3 2-60 " "
"	2-64 " "
"	8-88 " "
Fly Frames	80-128 " "
Warp Spinning Frames	80-128 " "
Mules	20-576 " "
Dressers	12
Warpers	18
Looms	504

# Description of Machinery in No 1 Mill

## Great Falls Openers

Feed rollers, 2 inches diameter  
1 Beater 1800 revolutions per minute 18 in. diam.  
Average No of Bales opened day 10.

## Whitins Dicker

Feed rollers  $1\frac{1}{8}$  in. diameter  
3 Beaters 2150 revolutions per min (12 inches)  
Width of Lap  $34\frac{1}{2}$  inches  
No of Laps per day 70.  
" pounds per Lap 9.71  
Draft 2 inches

## Breaker Card

Feed rollers  $1\frac{3}{8}$  inches diameter  
Cylinder 36 inches diam. 140 rev per min  
Doffer  $12\frac{3}{8}$  " " 7 to 9 " "  
Whole draft of Card 53 inches  
No of Pounds Carded per day 53.33

## Breaker Railway Head

1 Section of 7 Cards into 1 Head  
Front roller  $1\frac{1}{2}$  inches diam. 180 rev per min  
Whole draft of Head 2.15 inches

## Lap Winder

16 ends into 1 Lap  
Width of Lap  $34\frac{1}{2}$  inches



## Finisher Cards

Feed rollers  $1\frac{1}{8}$  inches diam.  
Cylinders 36 inches diam. 140 rev per min.  
Doffer  $12\frac{3}{4}$  " " 7 to 9 " "  
Whole draft of Card 53 inches  
 $\frac{1}{2}$  of Pounds carded per day 53.53 56 lbs  
Width of Wire on Cylinders 36 inches

## Finisher Railway Head

Front roller  $1\frac{1}{2}$  in. diam. <sup>320</sup> rev. per min.  
Whole draft of Head 3.60 inches  
1 Section of 7 Cards into 1 Head

## Drawing Frames

Drafts into 1 - 2 deliveries  
Front roller 1 in. diam. 368 rev per min.  
Whole draft of Frame 7.03 inches

## Speeder

24 Spindles - Bobbins 8x6 inches  
Front roller  $1\frac{1}{8}$  in. diam 183 rev per min  
Whole draft of Speeder 5.53 inches  
 $\frac{1}{2}$  of Twist per inch .97  
Flyers 662 revolutions per min.  
Roving  $\frac{1}{2}$  Hanks per lb 604  
 $\frac{1}{2}$  of Pounds per Spindle per day 9.69

## Extensor

60 Spindles - Bobbins  $7 \times 5$  inches  
Front roller  $1\frac{1}{8}$  in. diam - 132 revolutions  
Whole draft of Extensor 6.60 inches  
No. of Twist per inch 1.78  
Flyers 828 revolutions per min  
Roving ~~2.82~~ hanks per lb. 3.08 hanks  
No. of pounds per Spindle per day 3.61

## Slubber.

60 Spindles - Bobbins  $12 \times 5\frac{1}{2}$  inches  
Front roller  $1\frac{1}{4}$  inches diam. 150 rev per min  
Whole draft of Slubber 5.92 inches  
No. of Twist per inch - .92  
Flyers ~~542~~ revolutions per min.  
Roving 70 hanks per lb.  
No. of lbs per Spindle per day 9.69

## Fly Frames

88 Spindles - Bobbins  
Front roller  $1\frac{1}{8}$  inch diam 136 rev per min  
Whole draft of Frame 6.56 inches  
No. of Twist per inch 2.03  
Flyers 850 revolutions per min.  
Roving 2.35 hanks lb  
No. of lbs per Spindle per day 8.31

## Mules - Filling Spinning

576 Spindles Bobbins  $6 \times 1\frac{1}{8}$  inches  
Front roller 1 inch diam.  
Whole draft 12 inches - rollers  $9\frac{1}{2}$  - carriage 2 ft  
No. of Twist per inch 17  
" " yarn 25 hanks per lb  
" " hanks per Spindle per day  $11\frac{1}{2}$

## Spinning Frame.

3 3/4 - 1 1/2"

128 Spindles - Bobbins ~~7 1/2~~ inches  
Front roller 1. inch diam. 172 revolutions  
Whole draft of Frame 9.18 inches  
No of Twist per inch 20  
Flyers 4600 revolutions per min.  
No of Yarn 21.5 hanks per pound  
" " hanks per Spindle per day 4 1/2

## Warpers. Grapple.

6 Lewisiston "

Cloth	39 inches wide	-	312 Threads
"	36 "	"	293 "
"	33 "	"	267 "
"	30 "	"	250 "
Stannels			244 "

## Dresser - Lowell pattern

2 Steam Cylinders 16 1/16 in diam  
3 Fans

Average No of beams per day 580 1/2 each

## Looms.

39 in cloth	100 No of Picks	Warp. 64	No of Filling	64
36 "	" 194	" " "	" 64	" " "
33 "	" 126	" " "	" 64	" " "
30 "	" 44	" " "	" 64	" " "
Stannels	40	" " "	" 64	" " "

Speed of Loom 130 revolutions per min.  
No of yard per loom per day 30 - average -

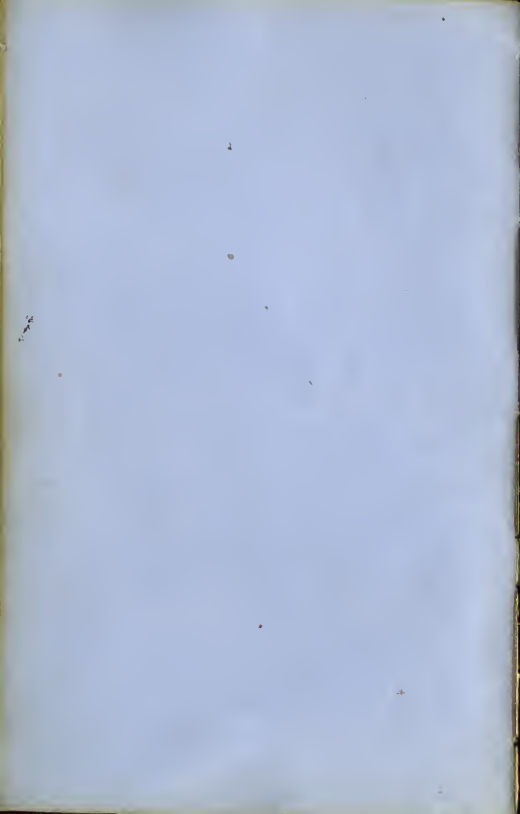
## Speeds

Water Wheels	224 teeth	9.33 rev per min
Gears on Jack Shaft	29 teeth	68.72 " " "
Shafting in lower room		157.66 " " "
" " Spinning		201.43 " " "
" " Carding		180.54 " " "
" " Mule		201.43 " " "
" " Attic		172.50 " " "

## Belting

24 inches	94 ft 7 inches long	(2)
18 " "	103 " 7 " "	(2)





## Machinery in No. 2 Mill.

8 Breast Water Wheels 42, 46 Horse Power each  
Total 339.68 Horse Power -

Openers	2	Brighton
Pickers	7.	
Breaker Cards	84.	
Railway Heads	12.	
Lap Winders	2.	
Finisher Cards	84.	
Railway Heads	12.	
Drawing Frames	12.	
Speeders	16-24	Spindles each
Extensors	28-32	" "
Warp Spining Frames	80-128	" "
Pitting Spining Frames	58-128	" "
Warpers	22	7
Grossers Slashers	16	2
Looms	584 -	Aug 30, 1879

# Description of Machinery in No 2 Mill

## Great Falls Opener

Feed rollers 2 inches diameter

1 Beater 1600 revolutions per min.

No of Bales opened per day 8

Beater 18 inches diameter

Brighton

## Whitins Picker

Feed rollers  $1\frac{1}{4}$  inches diameter

3 Beaters 2200 revolutions per min

Width of Lap  $5\frac{1}{2}$  inches

No of Laps made per day 75.

" " lbs per Lap 12.

Beaters 12 inches diam

Marker + Hackings  
and Gibson's

## Breaker Card

Feed rollers  $1\frac{1}{8}$  inches diam.

Cylinder 36 inches diam 140 revs per min.

Boffer 12

Whole draft of Card 50 inches

No of lbs Carded per day 80

Width of Wire on Cylinder  $37\frac{1}{2}$  inches

## Railway Head

1 Section of 7 cards into 1 Head

Front roller  $1\frac{1}{2}$  inches diam 144 revs per min

Whole draft of Head 2.37 inches



## Sap Winder

16 ends into 1 Sap  
Width of Sap  $3\frac{1}{2}$  inches

## Finisher Card

Feed roller  $1\frac{3}{8}$  in. diam.  
Cylinder 36 in. diam. 140 rev. per min  
Doffer 12 " 5 " "  
Whole draft of Card 50 inches  
No. of lbs carded per day 80  
Width of Wire on Cylinder  $3\frac{1}{2}$  inches

## Railway Head

1 Section of 7 Cards into 1 Head  
Front roller  $1\frac{1}{2}$  inches diam. 476 rev per min  
Whole draft of head 3.763 inches

## Drawing Frame

3 ends into 1 - 2 deliveries  
Front rollers  $1\frac{1}{4}$  inches diam  
Whole draft of Frame 6.25

## Speeders

24 Spindles. Bobbins  $8 \times 6\frac{1}{2}$  inches  
Front roller  $1\frac{1}{8}$  inches diam 224 rev per min  
Whole draft of Speeder 6 inches  
No. of Twist per inch 87  
Flyers 672 revolutions per min  
Roving 60 hanks per lb.  
No. of lbs per Spindle per day 20

## Extensor

32 Spindles - Bobbins  $8 \times 5$  inches  
Front roller  $1\frac{1}{8}$  inches diam - 192 rev per min  
Whole draft 6 inches  
No of Twist per inch 1.5  
Flyers 1016 revolutions per min  
Roving 2.5 hanks per lb  
No of lbs per Spindle per day 7.5

## Slubber

76 Spindles - Bobbins  $7 \times 3\frac{1}{2}$  inches  
Front roller 1 inch diam - 100 rev per min  
Whole draft of Frame (Slubber) 5.15 inches  
No of Twist per inches .82  
Flyers 581 revolutions per min  
Roving 2.62 hanks per lb

## Fly Frame

128 Spindles - Bobbins  $7 \times 3\frac{1}{2}$  inches  
Front roller 1 in diam 100 rev per min  
Whole draft of Frame 5.84 inches  
No of Twist per inch 1.5

## Fitting Spinning Frame

128 Spindles  
Front roller 1 in diam 90 rev per min  
Whole draft of Frame 9.18 inches  
No of Twist per inch 12  
Flyers 3800 revolutions per min  
No of Worn 14 hanks per pound  
" " hanks per Spindle per day  $5\frac{3}{4}$

## Warp Spinning

128 Spindles

Front rollers 1 in. diam - 90 rev per min

Whole draft of Frame 9.18 inches

No of Twist per inch 16.

Flyers 4600 revolutions per min

No of Barn 14 hanks per lb

" " hanks per Spindle per day  $5\frac{3}{4}$

## Cradle Warper

Jeans	355 Threads
Drillings	262 "
Stannels	250 "
Shirtings	242 "

## Dresser

2 Steam cylinders 16  $\frac{1}{8}$  inches diam

3 Fans

No of beams per day 6 - 432 Yds each

## Looms

Drillings	320 - 61	Picks	Warp	48	Picks	Pilling
Shirtings	48 - 42	"	"	48	"	"
Jeans	96 - 91	"	"	64	"	"
Stannels	40 - 64	"	"	56	"	"

Speed of Loom 130 revolutions per min

Average No of Yards per day 35

## Speeds

Water Wheel 224 Teeth	9.33 rev per min
Jack Shaft gears 21 "	68.72 " " "
Shafting in lower room	151.66 " " "
" " Dressing "	201.43 " " "
" " Spinning "	201.43 " " "
" " Carding "	201.43 " " "
" " Altic "	201.43 " " "

## Betting

24 inches Wide 94 ft 7 in long  
 18 " " 103 " 7 " "

Rule for getting weight

add inches to the length - say - 50 Yds

50 Yds

100 Yds

50 Yds

180 40 in wide 740

7200 / 33 1/3 Yds

100

37 in wide

740

14800 / 40 Yds

2220

2220

21600

28800

28800

3 1/2 Yds

10

28800

Rule to get No. of Bams - say -

37 in wide 50 X 50

50

100

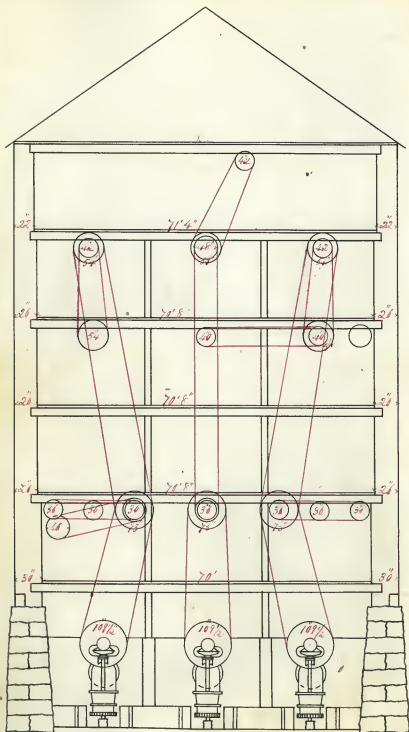
37 in wide

3700

4 1/2 Yds

740 / 14800 of 20 No. Bams

$$\begin{array}{r}
 280 \\
 1240 \\
 \hline
 66 \\
 8 \overline{) 7240} \quad 900
 \end{array}$$



*No. 3. Mill*

## Machinery in No 3 Mill

6 Turbine Wheels      6 ft 6 in diam

Openers      4

Pickers      6

Breaker Cards      160

Safe Winders      4

Finisher Cards      144

Railway Heads      12

Drawing Frames      12

Stubbers      14 - 72 Spindles each

Fly Frames      20 - 152 " "

Spinning Frames      108 - 128 " "

Mules      28 - 592 " "

Spoolers.      12

Warpers      16

Dressers      16

Looms      602

# Description of Machinery in No 3 Mill

## English Opener

Feed rollers 1<sup>st</sup> Set 3 inches diam  
" 2<sup>nd</sup> " 2  
1 Beater 1383 revolutions per min  
Draft of Opener 75 inches  
Width of Lap 34 inches  
No of bales opened per day  $3\frac{1}{2} = 1500$  lbs  
" Laps 60 - No of lbs per Lap 25.

## English Picker

Feed rollers 1<sup>st</sup> Set  $2\frac{1}{2}$  inches diam  
" 2<sup>nd</sup> "  $1\frac{1}{4}$   
3 Beaters - 1600 revolutions per min  
Draft of Picker 2.76 inches  
No of lbs per day 1000  
" Laps " 40 No of lbs per Lap 25

## Breaker Card

Feed rollers  $1\frac{3}{8}$  in diam  
Cylinder 36 in diam 130 rev per min  
Doffer 15 in diam  $4\frac{1}{2}$  " " "  
Whole draft of card 40 inches  
No of lbs carded per day 40  
Width of Wire on Cylinder 36 inches

## Lap Winder

2 Sections of (40) cards into 1 Lap



## Finisher Cards

Feed roller  $1\frac{1}{8}$  inches diam  
Cylinder 36 in. diam 130 rev per min  
Doffer 15 "  $4\frac{1}{2}$  " "  
Whole draft of Card 40 inches  
Width of Wire on cylinder 36 inches  
No of Rounds carded per

## Railway Head

1 Section of 12 Cards into 1 Head  
Front roller  $1\frac{1}{4}$  in diam - 300 rev per min  
Mean draft of Head 4.5 inches

## 1<sup>st</sup> Drawing Frame

4 ends into 1 - 4 deliveries  
Front roller  $1\frac{1}{8}$  in diam 250 rev per min  
Whole draft of Frame 5 inches

## 2<sup>nd</sup> Drawing Frame

2 ends into 1 - 10 deliveries  
Front roller  $1\frac{1}{8}$  in diam - 325 rev per min  
Whole draft of Frame 5 inches

## Slubber

72 Spindles - Bobbins  $9\frac{1}{2} \times 5$  inches  
Front roller  $1\frac{1}{8}$  in diam - 116 rev per min  
Whole draft of Slubber 5.5 inches  
No of Twist per inch 1.21  
" " revolutions of Flyers 580 per min  
" " Roving 1 hank per lb  
" " lbs per Spindle per day 7.5 to 8

## Fly Frame

152 Spindles - Bobbins  $7 \times 3\frac{1}{2}$  inches  
Front roller  $1\frac{1}{16}$  inches diam 100 rev per min.  
Whole draft of Frame 6 inches  
No of Twist per inch 2.5  
" " revolutions of Flyers 750 per min  
" " Roving 3 hanks per lb  
" " lbs per Spindle per day 2.12

## Ring Spinning Frame

128 Spindles - Bobbins  $5 \times 1\frac{1}{2}$  inches  
Front roller 1 in diam - 74 rev per min  
Whole draft of Frame  $7.35$  inches  
No of Twist per inch 23  
" " revolutions of Spindles 5500 per min  
" " Yarn 22 hanks per lb  
" " hanks per Spindle per day  $4\frac{1}{2}$

## Mules

592 Spindles - Bobbins  $6 \times 1\frac{1}{8}$  inches  
Front roller 1 inch diam  
Whole draft  $10\frac{1}{2}$  inches - rollers & carriage  $2\frac{1}{2}$   
No of Twist per inch 18  
" " Yarn 25 hanks per lb  
" " hanks per Spindle per day  $4\frac{1}{2}$

## Spooler

102 Spindles - 750 revolutions per min

## Warpers

Cloth	105 in. wide	420 threads -	2 beams
"	96 "	" "	" "
"	86 "	" "	" "
"	77 "	" "	" "
"	67 "	" "	" "
"	39 "	" "	" "
"	36 "	" "	" "

## Dresser

2 Steam Cylinders 16 <sup>11</sup>/<sub>16</sub> inches diam

3 Bars

Average No of Beams per day 11-525 yds each

## Looms

105 inch Cloth	32-	No of picks	Warp 14	No of Filling	6.8
96 "	"	" "	" "	" "	6.8
86 "	"	" "	" "	" "	6.8
77 "	"	" "	" "	" "	6.8
67 "	"	" "	" "	" "	6.8
39 "	"	" "	" "	" "	6.4
36 "	"	" "	" "	" "	6.4

105-96-86-77 & 67 inch looms run 80 rev per min -

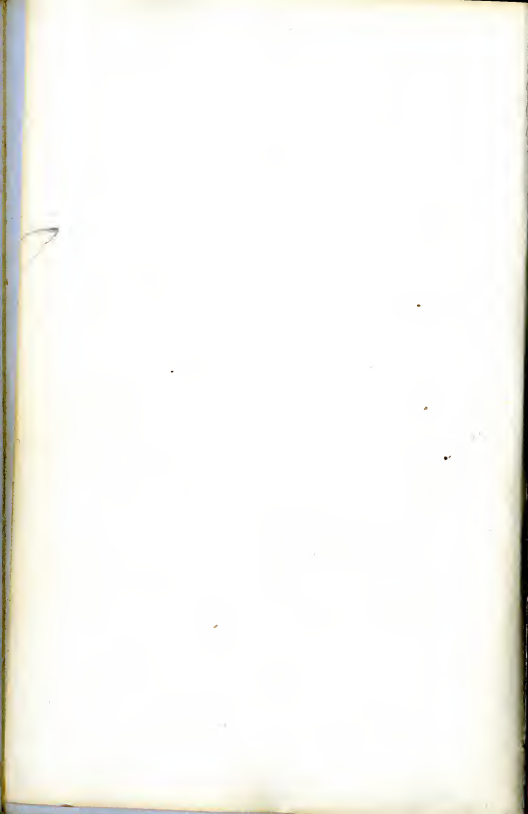
Average 14 <sup>1</sup>/<sub>2</sub> yards per day

39 & 36 in Looms run 130 rev per min

Average 30 Yards per day.

Name Goods	Width Cloth	No of Threads	No Filling	No. Warp	Yards to Pound	Width in Reel	Picks per inch
Organisation							
E	36 in	2496	26	22	3.50	40 <sup>3</sup> / <sub>4</sub>	64
R	36 "	2344	26	22	3.72	38 <sup>1</sup> / <sub>4</sub>	64
O	36 "	2136	26	22	4.06	34 <sup>3</sup> / <sub>8</sub>	64
N	30 "	1952	26	22	4.46	31 <sup>3</sup> / <sub>4</sub>	48
J	30 "	2840	26	22	3.52	31	64
D	30 "	2096 <sup>6</sup> / <sub>8</sub>	13	14	2.80	31	48
F	30 "	2000	8 <sup>3</sup> / <sub>4</sub>	22	2.80	32 <sup>5</sup> / <sub>8</sub>	66
G	29 <sup>1</sup> / <sub>2</sub>	1452	13	14	3.60	31 <sup>7</sup> / <sub>8</sub>	48
P	28 "	1368	23 <sup>1</sup> / <sub>2</sub>	23 <sup>1</sup> / <sub>2</sub>	6.46	30	56
8oz DK	30 <sup>1</sup> / <sub>4</sub>	2816	9 <sup>1</sup> / <sub>4</sub>	14	2.05	31 <sup>1</sup> / <sub>8</sub>	48
M		3560	30	24	3.66	42	76
B	30	2000	13	14	2.96	31	
58 in	58 in	3760	26	22	2.36	61 <sup>7</sup> / <sub>8</sub>	
67 "	67 "	4288	26	22	2.00	70 <sup>4</sup> / <sub>10</sub>	68
77 "	77 "	4928	26	22	1.71	80 <sup>2</sup> / <sub>10</sub>	68
86 "	86 "	5504	26	22	1.56	90 <sup>4</sup> / <sub>10</sub>	68
96 "	96 "	6144	26	22	1.39	100 <sup>2</sup> / <sub>10</sub>	68
106 "	106 "	6720	26	22	1.27	110 <sup>3</sup> / <sub>4</sub>	68
37 "	37 "	2400	26 <sup>1</sup> / <sub>2</sub>	22	3.62	39 <sup>1</sup> / <sub>4</sub>	64
12oz DK	28 <sup>1</sup> / <sub>2</sub>	1344	8 <sup>2</sup> / <sub>4</sub>	12 <sup>3</sup> / <sub>4</sub>	1.33	29 <sup>6</sup> / <sub>6</sub>	32

Hands for Day	Hands for Week	
33	37	1000
34	37	1000
35	37	1000
33	37	1000
42	80	1000
34	37	1000
28		
38	72	
16		
15		
14		
14		
13		



# Diary

Copied from ~~J. S. Harlands~~ book  
Gardens & ~~Expenses~~ in ~~Diary~~ 1840  
Lower Dam is  $16\frac{1}{2}$  below upper Dam.

Bottom of Wheel Pits in Biddford Mill  
N<sup>o</sup> 1 6 ft below Dam (Lower)

Mill walls placed at bottom of wheel  
pits and top is  $31\frac{1}{2}$  ft above Dam (Lower)

Top of underspinning is  $17 + 16\frac{1}{2} = 33\frac{1}{2}$  feet  
above Dam (Lower)

4 in for extra width in underspinning  
and piers

Mill N<sup>o</sup> 1. 8 wheels to be  $16\frac{1}{2}$  ft in  
long and 15 ft wide or deep

$25\frac{1}{2}$  ft from Brick line to centre of  
columns.  $23\frac{1}{2}$  between columns.

Mill N<sup>o</sup> 1. Biddford. 222 ft long. 75 ft  
wide

From centre of mill to centre of  
wheel  $23\frac{3}{4}$  ft

Bottom of brick flume is 10 ft  
Dam upper.

North wall of Repair Shop B. is  
to be with N. end of C. House which  
is with 11 in on Porch of B. M. N<sup>o</sup> 1 or  
98 ft 11 in from S. end of B. M. N<sup>o</sup> 1

25 ft from front side of S. Mill N<sup>o</sup> 1 & 2  
is Brick line of Picker N<sup>o</sup> 1. 172 ft  
Picker 128 ft long by 50 ft wide. 76 ft  
between ends of Mill. Picker comes on  
the end of Mills  $2\frac{1}{2}$  ft.

Dry House Chimney 73 ft high. 8 ft  
square at base 3 ft 4 in square at top

Top of window frames to basement of  
B. Mill No 1 are  $14\frac{1}{2}$  inches above top of  
underpinning.

Top of floor in first story is  
 $3\frac{1}{2}$  ft above bottom of underpinning.  
Floor 1st ft from top to top of floor-  
24 ft from North end of Mill  
No 1. South is brick lining of cross wall.  
Stone wall is 16 in thick. Batters  $1\frac{1}{2}$  in  
to the foot.

Addition to Packing Room is  $38\frac{1}{2}$  ft  
North of N. End of C. House or  $18'$  north  
of South side of Centre pier of Archway.

5 in above Dam is top of stone  
for centre of Main shaft in end of Mill.

3 ft below Dam is entrance wall  
overflow, recessing at 15th arch meeting  
top of arch  $4\frac{1}{2}$  ft above Dam.  
3rd wall batters  $1\frac{1}{2}$  in to the foot.

Wall on west side of 1st and 15th  
line of Mill is 15 ft above lower upper

3rd line of Mill. Mill on East side of  
B. M. No 1. is 15 ft from Mill No 1 and  
on right angle with 55 ft north of South  
end of Mill No 1.

Batters  $1\frac{1}{2}$  in to the foot. Top of the  
above wall is 15 ft above Dam or 3 ft  
below top of underpinning of Mill No 1.

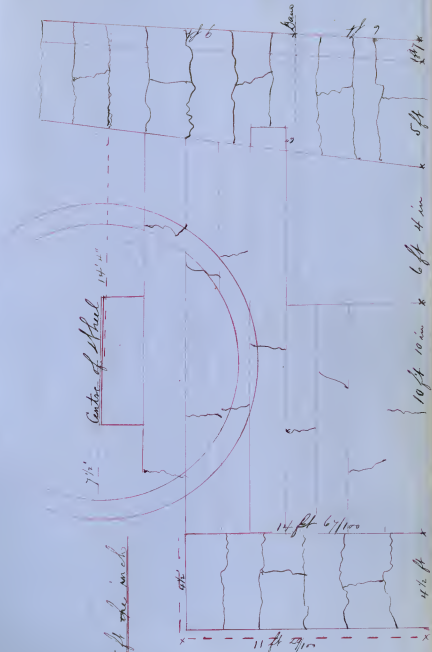
22 ft high. begin to turn. 5 ft Dam

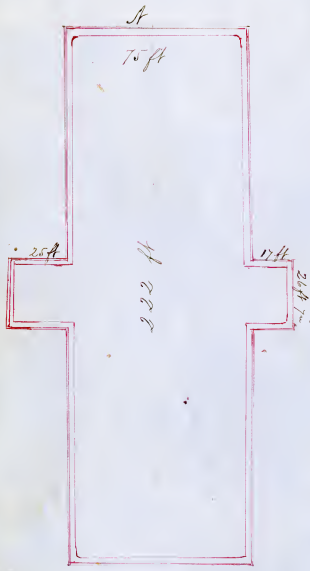


Outside of Wheel

$7\frac{1}{2}'$  Center of Wheel  $14' 2''$

Scale 45 ft one inch

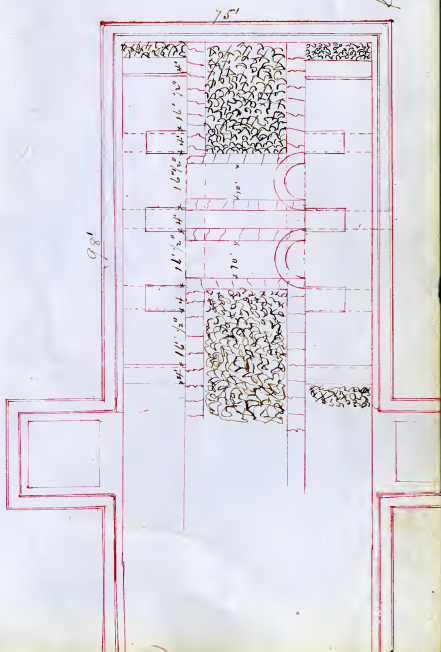


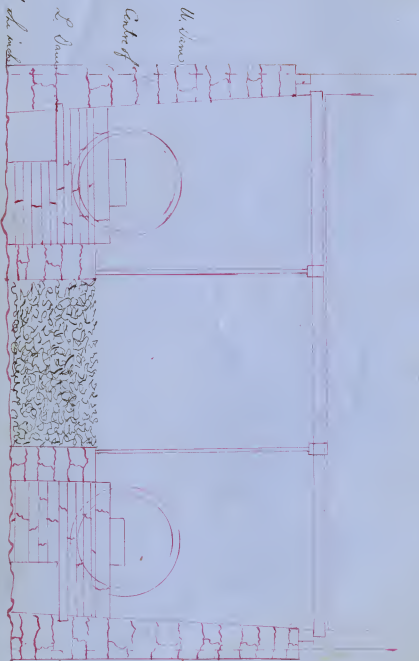


Scale 1/10 ft to the inch

Biddleford Mill No 1

scale 25 ft high  
mch





W. Vano

Centre of

L. Vano

From 12 1/2 ft. the inside

15' 27'

W. Vano

W. Vano

W. Vano

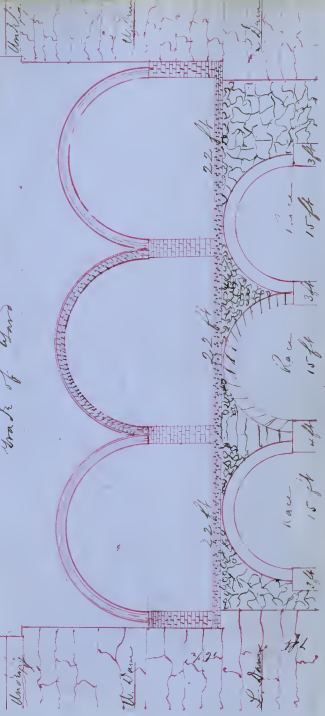
W. Vano

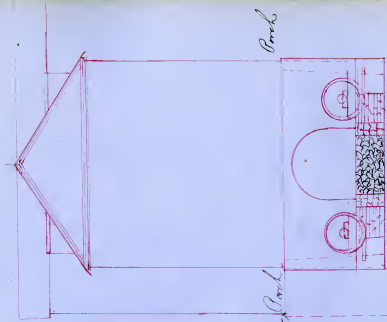
W. Vano

mill No. 1

mill No. 2

Grade of Road





Arch

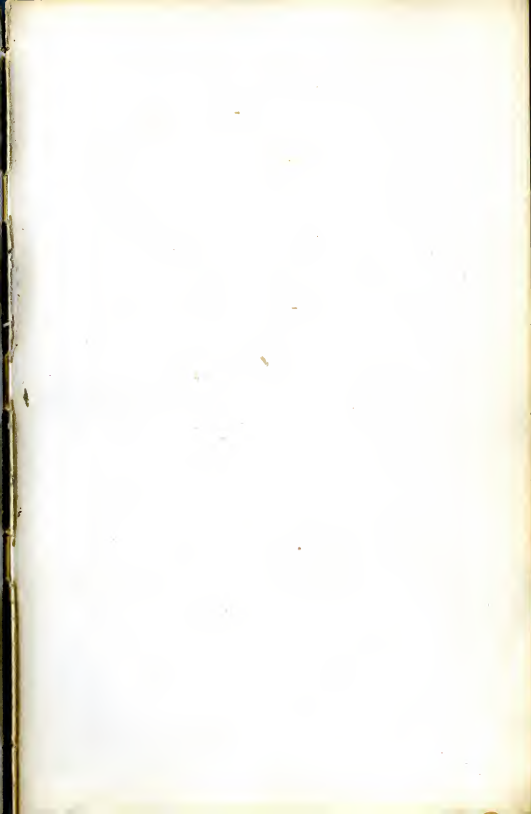
Arch

x 45 ft



Bottom of Road

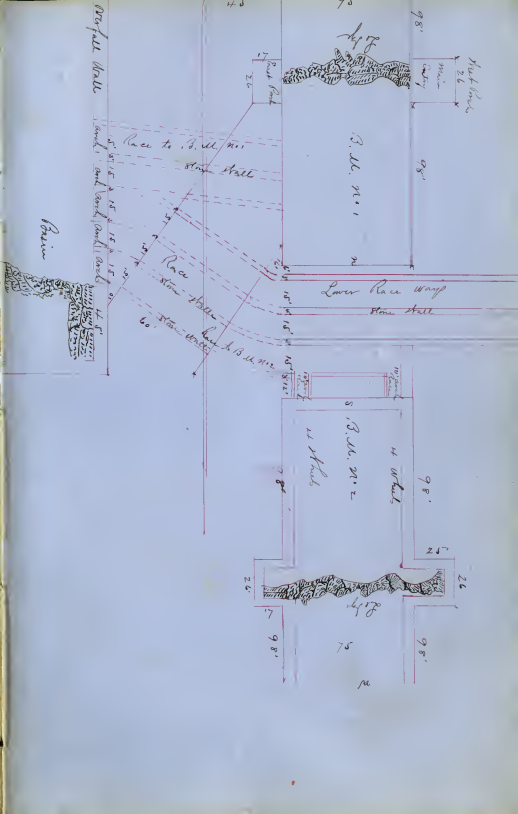
Bottom of Railway



Stone Hall by 18m

1812





The top of Peppercell Co's wheels are 1611 ft above lower dam.

The top of upper stone dam and Peppercell Co's overfall are 17.388 ft above lower dam.

$\frac{3.88}{1000}$  of 1 foot above P. Co's wheels is top of dam.

Between P. Co's wheels (bottom) and Lacina's Co's wheels there is 1' 6"

### Copy of Statement made by H. L. Loring

By actual measurement when the water was at the top of the 6" piece of timber on the Lacina's overfall it was 16.50 ft below the Peppercell overfall. measuring at the overfall.

When the water was 18" above the stone work of the Lacina's overfall it was 15.60 ft below the Peppercell overfall.

When the water at the Peppercell overfall was 16.50 ft below it was 15.53 ft below in No 3 wheel Pit.

When the water at the Peppercell overfall was 15.54 ft below it was 15.23 ft below in No 3 wheel Pit.

Bottom of Beams 16.112 ft + Peppercell overfall

Top of step on stairs in Mill No 3 Peppercell is 31.64 ft. below bottom of Beams in that Mill

# Proportions of Beton used in Reservoir Boston

1 Cement  
3 Sand  
3 Gravel  
3 Broken Stone } for 5 bottom layer 7" each

6 Cement  
6 Sand  
13 Gravel  
6 Broken Stone } For top layer

8 Whulpharrows full small rocks } Peppercell  
1 Bbl Cement } of  
Basin

Lacorn's 1st Basin Oct 1857

For Beton, 8 Barrow small "trap" rocks } 1 layer  
4 Sand } of 7 in  
1 Bbl Cement } 1 of 5 in  
to 12"

Will cover 22 square feet. 12 inches deep.

## Cement for the Front of Back Building

14 lbs Clean Dry sand

14 " Bright Dust

1/2 " Litharge

Moistened slightly with boiled Linseed oil  
oil the wall 2 or 3 coats before the above is  
put on

# Lime & Sand

- 1 Cord of Sand used to 8 casks of Lime
- 1 " " " " 12 M Bricks
- 2 Sand to 1 Cement usually
- 1 Cask of Sand is  $4\frac{123}{1000}$  ft cubic
- 1 Bushel Hair to 35 square yards plastering
- 1 Cask Lime to 35 " " " (about)
- 1 " " " 1 Bushel Hair
- 2 " " " 3000 bricks generally
- Plastering 6 ft square yard
- Underpinning stone cost 25¢ foot length
- Setting Iron Columns 3¢ each
- 3 Bricks in Peppercell Co No 1 mill
- 14,859 lbs @ 8¢ lb
- 42 cubic ft to 1 Ton Coal
- 1 " " weighs 60 lb

## Stone - Granite

- 25 cubic feet makes a perch
- Slating a mill 236' long & 50' wide, 15.717 cu ft @ 71¢
- Bricks in above mill & chimnies high + 1½ Basements 936.580
- " " Boarding houses 3 " " 120' x 36' 420.570
- " " Mill 268' x 62' 4 " " 1,530.405
- Slating above mill 25.919 ft
- 1.083 perch stone above @ 1.45

Experiments made by Mr Saml. Hether  
 testing the power required to drive the  
 different Spinning Frames.

July 23<sup>d</sup> 1872

1<sup>st</sup> Trial of Water Power Ring Frame - 128 Spindle

	Rev.	Full	H.P.	Empty
Short spindle, Banded single, Front Roll,	80.	821 <sup>1</sup> / <sub>2</sub>	1.493	750 <sup>1</sup> / <sub>2</sub> 1.364
Long " " " " "	83.	950	1.727	794 1.444
" 8 " " across " "	82.	855 <sup>1</sup> / <sub>2</sub>	1.555	744 1.352
" 16 " " on one side " "	81	961	1.747	858 1.545

July 24.

2<sup>d</sup> Trial

	Rev.	Full	H.P.	Empty
Short spindle Banded single, Front Roll	84	935.55	1.737	844.44 1.535
Long " " " " "	84	983.33	1.788	850 1.545
" 16 " " on one side " "	84	994.44	1.808	883.33 1.606
" 16 " " across (same frame) " "	84	872.22	1.586	761 1.384
" 8 " " across " "	84	816.66	1.485	683.33 1.242

16% in favor of 8 spindle band as compared with short spindle

18% " " " 8 " " " " " " "

13% " " " 16 " " " " " " "

July 25

3<sup>d</sup> Trial - No 2 Throstle Pearl Flyer

Front roll 71 rev. Flyer 4929

16 spindle banded on one side. Empty	927.54	1.686	H.P.
16 " " across " "	884.05	1.607	5% less
8 " " " " "	840.58	1.528	10% "

July 26

4<sup>th</sup> Trial - No 1 Throstle

Front roll 71 rev. Flyer 4929

16 spindle banded on one side	1.101.45	2.002	H.P.
16 " " across " "	1.058.	1.924	" " - 4%
8 " " " " "	1.014.49	1.845	" " - 8%

By R. M. Hobbs & Co. See Corrected Statement post

Name Goods	Width Recd.	Width Cloth	Threads in Warp	No Warp	No Fill	Yards Per lb.	Yards Per lb.
E.	40 <sup>3</sup> / <sub>4</sub>	<sup>39 <sup>1</sup>/<sub>2</sub></sup> 39 <sup>1</sup> / <sub>2</sub>	2496	21.50	24.75	23.1/2	3.50
R.	38 <sup>1</sup> / <sub>2</sub>	<sup>36 <sup>1</sup>/<sub>2</sub></sup> 36 <sup>1</sup> / <sub>2</sub>	2344	21.50	24.75	23.1/2	3.72
O.	34 <sup>3</sup> / <sub>4</sub>	<sup>33 <sup>1</sup>/<sub>2</sub></sup> 33 <sup>1</sup> / <sub>2</sub>	2136	21.50	24.75	23.1/2	4.06
N.	31 <sup>3</sup> / <sub>4</sub>	<sup>30 <sup>1</sup>/<sub>2</sub></sup> 30 <sup>1</sup> / <sub>2</sub>	1952	21.50	24.75	23.1/2	4.46
<sup>30</sup> P.	31 <sup>3</sup> / <sub>4</sub>	<sup>30 <sup>1</sup>/<sub>2</sub></sup> 30 <sup>1</sup> / <sub>2</sub>	2840	21.50	24.75	22.75	3.53
<sup>30</sup> P.	40 <sup>3</sup> / <sub>4</sub>	<sup>39 <sup>1</sup>/<sub>2</sub></sup> 39 <sup>1</sup> / <sub>2</sub>	3650	21.50	26.50	22.75	2.72
28" S. f.	30	28"	2840	21.50	26.50	23.43	3.74
28 1/2" S. f.	30 1/2	28 1/2	3195	21.50	26.50	23.31	3.45
30" S. f.	32	30	3370	21.50	26.50	23.31	3.26
30" H. S. f.	32 1/4	30	3510	21.50	24.50	22.56	3.08
29" H. S. f.	30 3/4	29"	3195	21.50	24.50	22.59	3.34
28 1/2" S. f.	30 1/2	28 1/2	3370	21.50	24.50	22.55	3.20
72 jeans	77	72	4928	21.50	24.50	23.99	1.41
48" Plain	51 1/4	<sup>47 <sup>1</sup>/<sub>2</sub></sup> 47 1/2	3136	21.50	24.50	23.	2.80
45" "	47	<sup>45 <sup>1</sup>/<sub>2</sub></sup> 45 1/2	2944	21.50	24.50	22.	2.96
P. K.	30 3/4	29"	1917	21.50	15.25	14.33	3.49
P. K.							
Drills	31	30	2100	13.50	12.75	<sup>13.20</sup> 13.11	<sup>2.85</sup> 2.82
Drills	31	30	2100	14.	13.08	13.62	2.85
105" <sup>12</sup> / <sub>4</sub>	110 <sup>3</sup> / <sub>4</sub>	105"	6720	21.50	24.50	23.	1.27
96 <sup>11</sup> / <sub>4</sub>	100 <sup>22</sup> / <sub>100</sub>	96"	6144	21.50	24.50	23.	1.39
86 <sup>10</sup> / <sub>4</sub>	90 <sup>40</sup> / <sub>100</sub>	86"	5504	21.50	24.50	23.	1.58
77 <sup>9</sup> / <sub>4</sub>	80.94	77"	4928	21.50	24.50	23.	1.76
67 <sup>8</sup> / <sub>4</sub>	70	67"	4288	21.50	24.50	23.	2.01
57 <sup>7</sup> / <sub>4</sub>	61.75	57"	3760	21.50	24.50	23.	2.06
			74				

over three leaves 

Wings Per inch	Till Ricks Per inch	Hooks Per Yard	Before Hooks Per Pound	Change Hooks Per Pound
64	64	6.86	24 1/4	3.66
64	64	6.18	"	3.85
64	64	5.66	"	
64	64	5.15	"	
94.66	64	4.43	23.67	3.65
93.76	64	8.27	23.84	2.85
101.42	64	6.25	23.74	3.79
112.10	64	6.78	23.63	3.28
112.33	64	7.14	23.31	3.26
117.	64	7.33	22.74	3.10
112.10	64	6.78		
118.24	64	7.01		
68.30	68	13.26		
64	64	8.21	24 1/4	2.90
64	64	7.69	"	3.10
66.10	68	5.25		
70	48	<del>4.64</del>		
70	48	4.78		
64	64	17.98	24 1/4	1.32
64	64	16.51	"	1.46
64	64	14.52	"	1.63
64	64	13.74	"	1.81
64	64	11.14	"	2.08
64	64	9.77	"	2.46
		19.04		

April 1878 By R. M. Hobbs Supt.

Name of Goods	Width Reed	Width Cloth	No Thread in Warp	No Fill	No Warp	Yards Per Pound
E.	40 <sup>3</sup> / <sub>4</sub>	39"	2496	25.00	21.50	23.33
R.	38 <sup>1</sup> / <sub>4</sub>	36	2344	" "	"	"
O.	34 <sup>7</sup> / <sub>8</sub>	33	2136	"	"	"
N.	31 <sup>1</sup> / <sub>4</sub>	30	1952	"	"	"
30" J.	31 <sup>1</sup> / <sub>4</sub>	30	2840	"	"	22.91
39" J.	40 <sup>3</sup> / <sub>4</sub>	39	8600	26.50	22.00	22.91
S. J. 28" C	30 <sup>1</sup> / <sub>2</sub>	28	2840	26.50	"	23.75
S. J. 28 <sup>1</sup> / <sub>2</sub> " B	30 <sup>1</sup> / <sub>2</sub>	28 <sup>1</sup> / <sub>2</sub>	3195	26.50	"	23.62 <sup>1</sup> / <sub>2</sub>
## S. J. 28 <sup>1</sup> / <sub>2</sub> " A	30 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>2</sub>	3370	25.00	"	23.50
## S. J. 29" BB	30 <sup>3</sup> / <sub>4</sub>	29	3195	"	"	23.10
## S. J. 30" AA	32 <sup>1</sup> / <sub>4</sub>	30	3510	"	"	23.10
S. J. 30" BB	32	30	3370	26.50	"	23.50
72" J.	77	72	4928	25.00	"	23.50
48" Plain	51 <sup>1</sup> / <sub>4</sub>	48	3186	"	21.50	23.33
45" "	47	45	2944	"	"	"
P. K.	30 <sup>3</sup> / <sub>4</sub>	29	1917	18.25	22.00	18.37
Drills	31	30	2100	14.00	18.36	13.62 <sup>1</sup> / <sub>2</sub>
110 " 13 <sup>1</sup> / <sub>4</sub>	116"	110	7040	25.00	21.50	23.25
105 " 12 <sup>1</sup> / <sub>4</sub>	110 <sup>3</sup> / <sub>4</sub>	105	6720	25.00	21.50	23.33
96" 11 <sup>1</sup> / <sub>4</sub>	100 <sup>2</sup> / <sub>3</sub>	96	6144	"	"	"
86" 10 <sup>1</sup> / <sub>4</sub>	90 <sup>4</sup> / <sub>10</sub>	86	5504	"	"	"
77" 9 <sup>1</sup> / <sub>4</sub>	80.94	77	4928	"	"	"
67 8 <sup>1</sup> / <sub>4</sub>	70.	67	4288	"	"	"
57 7 <sup>1</sup> / <sub>4</sub>	61.75	57	3760	"	"	"
Enam'd Cloth	58 <sup>1</sup> / <sub>4</sub>	47	3600	33	"	29.27
Enam'd "	41 <sup>1</sup> / <sub>2</sub>	39	3270	33	"	29.04
Twist & Shute	100 <sup>2</sup> / <sub>3</sub>	96	6528	18.25	21.50	19.75
Twist & Shute	70 <sup>1</sup> / <sub>4</sub>	67	4586	18.25	"	19.75
" 7 <sup>1</sup> / <sub>4</sub>	81	77	5286	18.25	"	"
" 8 <sup>1</sup> / <sub>4</sub>	91	86	5844	18.25	"	"
Green S. J.	31 <sup>2</sup> / <sub>10</sub>	30	2500	14.00	18.36	13.60
H. S. J.	29 <sup>3</sup> / <sub>4</sub>	28 <sup>1</sup> / <sub>2</sub>	2640	"	"	"
Rique 1872	31 <sup>2</sup> / <sub>4</sub>	30	1452	18.25	21.2	17.80
Warp Cloth	Apr 23 1881	36	1440	12.50	12.50	12.50
New S. J.	32"	30"	3075	26.50	21.50	23.45
Double Cord Cloth	32"	30"	4912	"	21.50	"
C. S. J.	32"	30	3075	23	21.75	"



Yards Per Pound	Thunks one <sup>in</sup> Yard	Picks of Warp Per inch	Picks of Fill Per inch	No of Harnesses	Dents in Reed
3.50	6.75	64	64		
3.72	6.22	"	"		
4.06	5.78	"	"		
4.50	5.18	"	"		
3.56	6.43	94.67	"		
2.78	8.23	94.67	"		
3.85	6.26	101.42	"		
3.50	6.72	112.10	"		
3.28	7.02	118.24	"		
3.38	6.82	110.17	"		
5.14	7.33	117.00	"		
3.24	7.14	112.33	"		
1.77	13.26	68.30	68		
2.78	8.39	64.00	64		
2.96	7.87	"	"		
3.50	5.25	66.10	68		
2.85	4.78	70.00	48.		
1.22	19.04	64	64		3532
1.28	18.16	64.	64		
1.40	16.60	"	"		
1.57	14.87	"	"		
1.75	13.31	"	"		
2.01	11.59	"	"		
2.30	10.16	"	"		
1.94	15.02	76.59	160		
2.25	12.85	83.84	"		
1.13		68	80		
1.50	13.40	68	"	14	
1.40	15.40	"	"	7	
1.22	16.27	"	"	7	
2.25	6.05	93.33	86	5	
2.37	5.75	" "	"	—	
3.51	5.07	64	60	5 to 12	
3.12	4.00	40	44		
3.50	6.70	101.42	64	5	610
		163.73	96	11	1028
3.35	"6.70"	"101.42"	64	5	

August 25. 1879

# Revised List of all the Spinning

No 1

Fourth Story

Warp Throette	40	frames	128 spin.	=	5.120
Filling Ring	56	do	176 "	=	9.856

Fifth Story

Warp Ring	48	do	168 "	=	8.064
Total No 1					<u>23.040</u>

No 2

Warp Ring	60	frames	160 spin.	=	9.600
"	"	20	" 176 "	=	3.520
"	"	20	" 144 "	=	2.880
100 Total Warp					<u>16.000</u>

Mule Hill. Attic 4 Mules	784 spin.	=	3.136
over Pickin 2 "	928 "	=	1.856
Main Room 12 "	784 "	=	9.408
Total Filling			<u>14.400</u>
" No. 2			<u>30.400</u>

No 3

Warp Room	129	frames	128 spin	=	16.512
-----------	-----	--------	----------	---	--------

Mules	28	"	592 spin	=	16.576
"	4	"	928 "	=	3.712
Total No 3					<u>36.800</u>
Total in all the Mills					<u>90.240</u>

August 27. 1879.

Revised List of all the Weaving.

No 1.

Lower Room	Width	No	
	86"	36	
	77"	32	
	39"	156	224.

Upper do	48"	24	
	39"	276	300.
Total in No 1.			524

No 2.

Upper Room	80"	236.	236.
Lower Room	108"	34	

Centre	{	Crompton	52"	16	
		Bridgesburg	48"	16	
		Colvin	36"	16	
		No 1 old	39"	24	
		Colvin	36"	34	
		Old narrow	30"	120	
		Lowell	52"	20	306.
no account - Logall		86"	worth 6		

Centre	Colvin	36"	108	
"	over old Pickens do	36"	156	264.
Total in No 2.				906.

No 3.

Lower Room	105"	90	
	86"	79	
	77"	49	
	48"	26	
	36"	88	332.

Upper Room	39"	1524	
	36"	298	452.
Total in No 3.			784.

Total in all the Mills 2214

April 8, 1881.

Revised List of all Spinning.

viz: -

No. 1. Mill

<u>Fourth Story</u>	Ring Filling	96 Frames	2 3/4" gage
<u>Fifth Story</u>	" Warp	80 "	3" "
	Attic old mules	4 "	

<u>No 2.</u>	Ring	Warp	60	"	2 1/2" "
<u>Fifth Story</u>	"	"	20	"	" "
	"	"	20	"	" "

<u>Fourth Story</u>	Mule	Fill	12	"	1 5/8" "
	Attic		4	"	1 5/8" "
	over Old Picker		2	"	" "

No 3.

5 <sup>th</sup> Story	Mule	1 1/2	"	1 5/8
"	"	6	"	"
4 <sup>th</sup> "	"	4	"	"

<u>Fourth Story</u>	Ring Warp	129	"	2 1/2
---------------------	-----------	-----	---	-------

ea 176 Spindles = 16.896

" 168 " = 13.440

" 592 " = 2.368 32.704

160 " }  
176 " } = 16.000  
144 " }

64" Stretch Ea 784 Spindles = 9.408

64" Stretch Ea 784 Spindles = 3.136

" " " 784 " = 1.568 30.112

64" " 784 " 9.408

" " 928 " 5.568

" " 928 " 3.712

128 " 16.512 35.200

Total 98.016

June 8. 1881.

Revised list of all the Weaving.

No 1.

Lower Room.

Width

No.

86"

36

77"

32

39"

156 224

Upper "

48"

24

Lower "

39"

275 299

No 2.

Upper "

30"

336 336

Lower "

110"

8

105"

74

77"

26

Crompton

52"

16

Bridgesburg

42"

16

Lowell

52"

20

No 1 old

39"

24

36"

50

30"

120

354

Colvin Centre 2<sup>d</sup> story

36"

100

" " over old Dicker

36"

164

264.

No 3.

Lower Room

Colvin

36"

88

Mason

36"

2

105"

105"

90

86"

86"

79

77"

77"

49

48

48"

26

334.

Upper "

39"

39"

154

36"

36"

298

452

No 4

Upper "

30"

228

Lower "

30"

216

" "

39"

1

445

Total

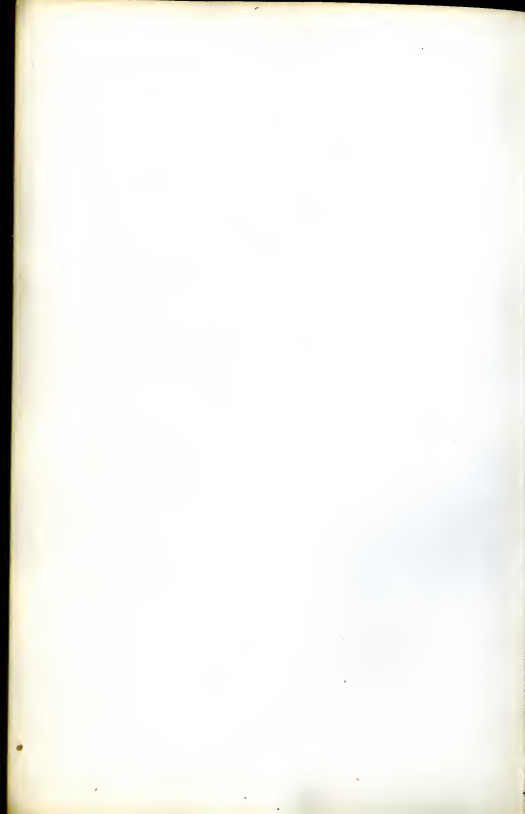
2708

# Recapitulation

Total in all the Rooms as follows  
view:-

On	110"	8	looms
"	105"	164	"
"	86"	115	"
"	77"	107	"
	52"	36	"
	48"	50	"
	42"	16	"
	39"	610	"
	36"	702	"
	30"	900	"

Total in all } = 2,708  
the mills }









Dimensions of Pepp. Coal Sheds.

North of Boilers

$$\left. \begin{array}{l} 90' = \text{length} \\ 28' = \text{Width} \\ 15' = \text{Depth} \end{array} \right\} 90 \times 28 \times 15 = 37,800 \text{ C.ft.}$$

West of Boilers

$$\left. \begin{array}{l} 78' = \text{length} \\ 24 = \text{Width} \\ 13 = \text{Depth} \end{array} \right\} 78 \times 24 \times 13 = 24,336 \text{ " "}$$

$$\text{C.ft. to 1 ton} = 40 \quad \left| \begin{array}{r} 62,136 \end{array} \right.$$

1553 Tons Capacity

Large Shed at wharf. = 3500 tons,



[Approximately 70 blank  
pages between entries here]





# Memo. on Columns for Pepperell No 3 Mill

By test of strength, Yellow Pine 3,500 lbs per sq. inch

and Norway Pine  $\frac{2}{3}$  strength of Yellow Pine

Assuming factor of safety of 5-

	Computed Loads in lbs - each column	Present Columns	Safe Load as above lbs
Roof at 40 lbs per sq ft.	7,520	Iron -	
5 <sup>th</sup> Story Floor at 16.2 lbs per sq. ft.			
Mule Spinning " 10.5 " " " "	4,990		
	12,510	6" Nor. Pine	15,493
4 <sup>th</sup> Story Floor " 16.2 " " " "			
Ring Spinning " 28.3 " " " "	10,061		
	22,571	7" " "	17,966
	Factor 3 $\frac{1}{4}$		
3 <sup>d</sup> Story Floor " 16.2 " " " "			
Roving " 31.9 " " " "	9,050		
	31,621	8" " "	23,450
	Factor 3 $\frac{1}{4}$		
2 <sup>d</sup> Story Floor " 16.2 " " " "			
Looms " 17. " " " "	6,250	8" " "	23,450
	37,871		
	Double or Factor 2		



## Memo for Laconia Cast Iron Columns

$2\frac{7}{8}"$  column carrying  $3^{rd}$  floor has load of  $\dots\dots\dots 24,750$  <sup>lbs</sup>

This column will carry (factor of 5.6 average  
or 5,000 lbs per sq. in.) safely  $\dots\dots\dots 22,090$  <sup>lbs</sup>

Its present factor of safety is - 5.11

$3\frac{1}{2}"$  column carrying  $2^{nd}$  floor has load of  $30,767$

This column should carry (factor of 5.6 av.  
or 5,000 lbs per sq. in.) safely  $\dots\dots\dots 28,220$

Its present factor of safety is - 5.13

$4\frac{5}{8}"$  column carrying  $1^{st}$  floor has load of  $\dots\dots\dots 38,076$

This column should carry (factor of 5.6 av.  
or 5,000 lbs per sq. in.) safely  $\dots\dots\dots 39,300$

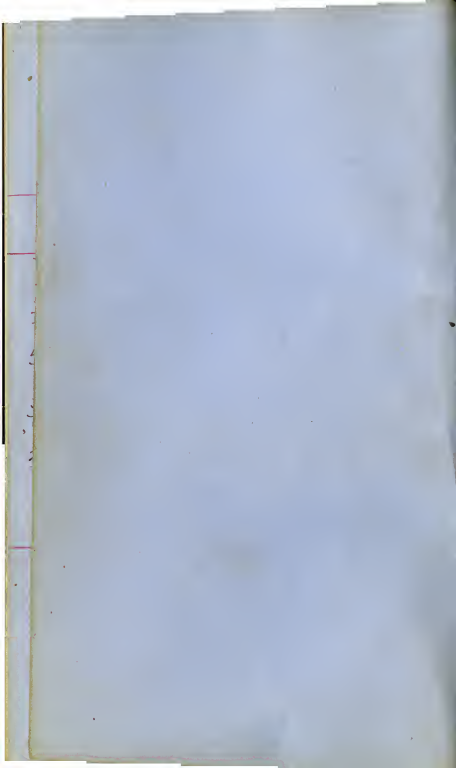
Its present factor of safety is 5.78

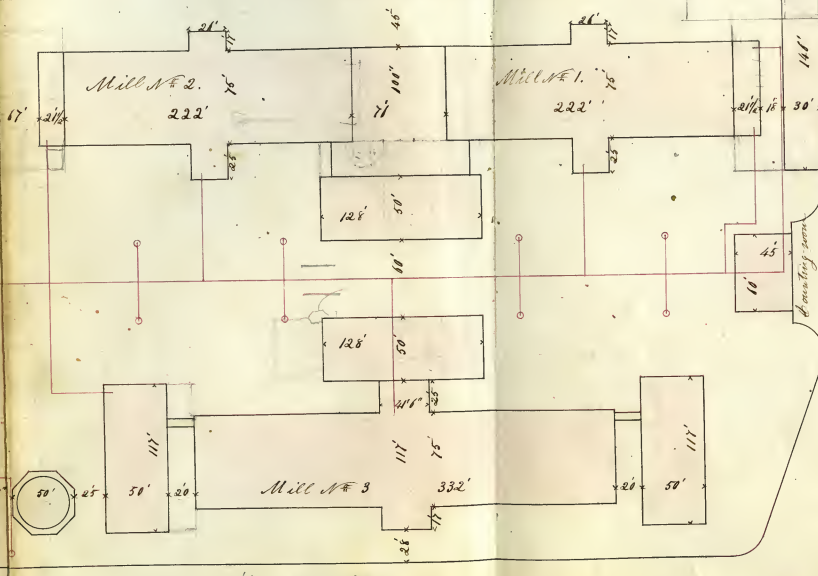
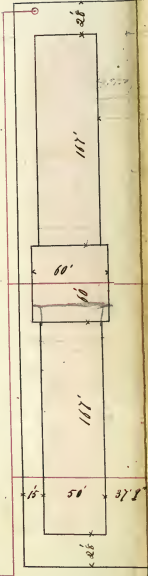
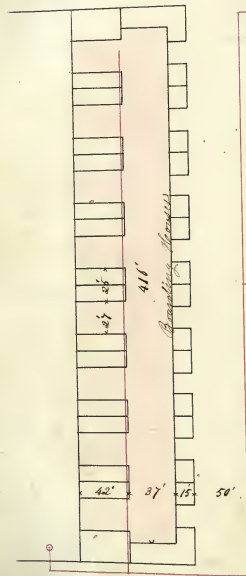
The ratio of length to diameter seems weakest  
part of these columns

That of $3\frac{d}{8}$ Story columns is about 48 to 1	} assuming length about 12 feet
" " $2\frac{d}{8}$ " " " " 40 to 1	
" " $1\frac{d}{8}$ " " " " 31 to 1	

This ratio should be about 20 to 1  
and not exceed 30 to 1

(Stephen Greene)





Y. L. L. L.



# Menu of Mardo per Plate

E°	20 pes.	818	Relief
R°	" "	"	
O°	" "	"	
N°	" "	"	
45in	24 "	945	960
48	24 "	"	"
57	12 "	415	420
67	" "	"	"
77	" "	"	"
86	" "	"	"
96	" "	"	"
Brill	odd 585 14 pes.	600 15 pes.	650 16 pes.
Baths	10 pes.	925	
30in jeans		600 20 pes.	900 30 pes.
39in do	12 pes.		1050
67 Parils	12 "	415	420
77 do	" "	"	"
86 do	" "	"	"
96 do	" "	"	"

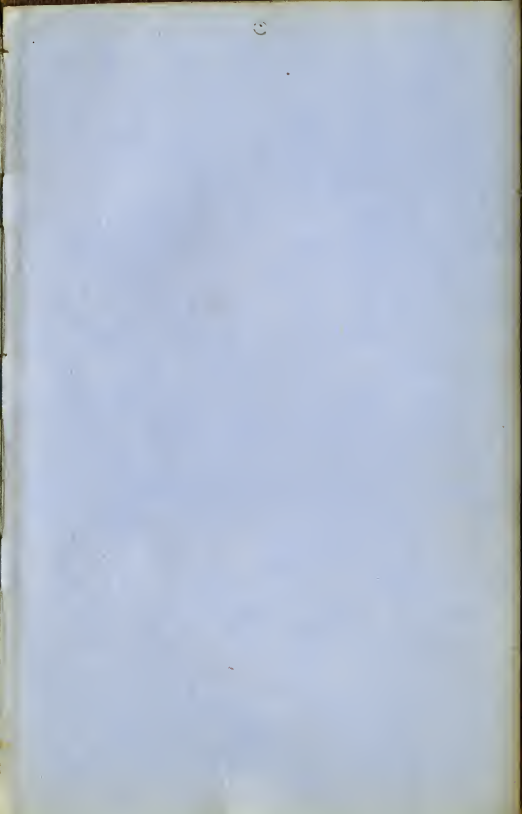
Weight of 4 Sampled English Drills  
Same count as Lepperell Drills -

	<u>Before Washing</u>	<u>After Washing</u>	<u>gr's loss</u>	<u>% loss</u>
No. 1	44	31.5	12.5	28.4
2	40.5	31	9.5	23.45
3	41	27.5	13.5	32.92
4	39	26	13	33.33

Same Lepperell Hfg Co. Drills.

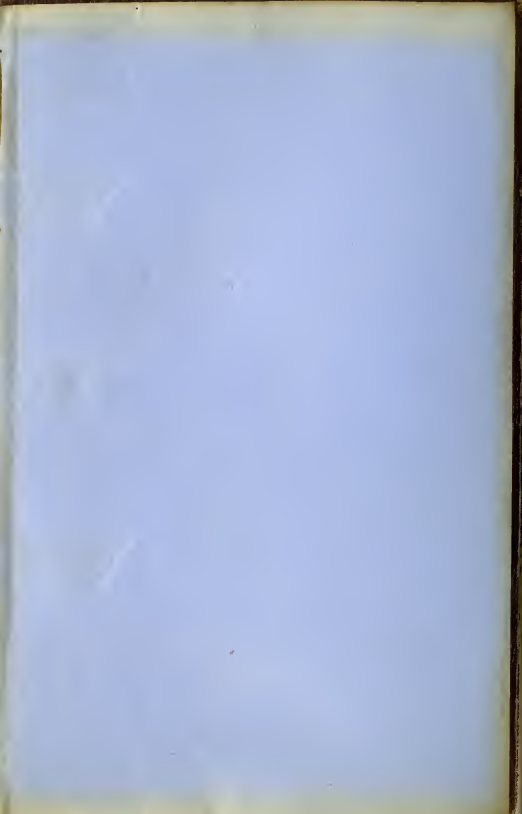
4 different cuts

	<u>Before Washing</u>	<u>After Washing</u>	<u>gr's loss</u>	<u>% loss</u>
No. 1	43	40.5	2.5	5.81
2	40	37.5	2.5	6.25
3	40.5	38	2.5	6.17
4	41	38.2	2.8	6.83











# Pepperell Buy-Guide

## HOW TO CARE FOR IT

— to make it last longer

Put clean sheets at the bottom of the pile in your linen closet so that all your sheets get equal wear.

Vary the folding of your sheets. If you fold them always in the same place, they are likely to crack along the folds.

Don't use too hot an iron or too much pressure when ironing the folds of a sheet.

**Washing instructions:** Sheets require no special care in laundering—they are about the simplest of all cotton goods to wash. But here are just a few words of caution: Do not wash white sheets in the same water with colored fabrics and (this is most important!) be sure you rinse them thoroughly to remove all soap. Avoid using strong bleaching agents.

## HOW TO PICK THE RIGHT SIZE

For cots or narrow daybeds not over 30 inches wide

**Torn sizes:** 54" x 99" or 54" x 108"

For single beds not over 36 inches wide

**Torn sizes:** 63" x 99" or 63" x 108"

For twin beds from 36 to 48 inches wide

**Torn sizes:** 72" x 99" or 72" x 108"

For three-quarter beds from 48 to 57 inches wide

**Torn sizes:** 72" x 99" or 72" x 108" or 81" x 108"

For double beds from 57 to 66 inches wide

**Torn sizes:** 81" x 108" or 90" x 108"

It is best to buy all your sheets in the 108" length, to allow a good tuck-in at the foot and a long turn-back to protect your blankets.

## WHAT SIZE FOR PILLOWCASES

Pillowcase sizes are given with the first number indicating the distance around the *width* of the pillow. The second number shows the *length*. Therefore, a 45 x 36 case would be 45 inches around and 36 inches long before hemming. With a 3-inch hem the finished length would be about 32 inches. Buy your pillowcases to a size approximately  $1\frac{1}{2}$  inches more around and 6 inches longer than your pillow.

## SIGNS OF A GOOD SHEET

1. Small stitches are characteristic of a good sheet and denote fine workmanship. Make sure the stitches are caught firmly at both ends of the hem.
2. Only careful hand-tearing insures straight hems after laundering. Be sure the label is marked "torn size."
3. A sheet should not be stiff and "boardy." This is an indication of excessive starch.
4. The selvage should be closely woven, almost like a tape, and free from wrinkles at the edges.

## HOW MANY SHEETS?

The average household should have at least six sheets for each bed in the house. It works like this—two on the bed, two in the laundry, and two on the closet shelf for an emergency.

Don't wait until all your sheets wear out before you buy new ones. The best way is to buy a pair of sheets every year for each bed in the house . . . it saves the large initial expense of laying in an entire new supply all at once.

**PEPPERELL MANUFACTURING COMPANY**  
*Boston, Massachusetts*

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*Pepperell Buy Guide*

# Lady Pepperell

## SERVICE WEIGHT SHEET

An exceptionally fine, strong and serviceable muslin sheet which, we believe, offers the utmost in combined thrift, comfort and long wear.



This Pepperell product has been tested and approved by the Better Fabrics Testing Bureau.

**PEPPERELL MANUFACTURING COMPANY**  
*Boston, Massachusetts*

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### WHAT IT IS MADE OF

*Fibre content: 100% American cotton.*

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### HOW IT IS MADE

*Thread count (after bleaching) averages: 146 threads to the square inch—76 lengthwise, 70 crosswise.*

*Weight averages 4.6 ounces to the square yard.*

*Finishing materials: less than 1%.*

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Made from heavier and stronger threads than percale sheets, so that fewer threads to the square inch are needed to make a close-woven, fine-appearing surface. More threads are used than in light-weight muslin sheets to provide extra strength and wearability.

3/8-inch Tapered Tape selvage is tightly woven to offer extra protection against cracking and tearing.

Hems are stitched with small stitches, and the ends firmly caught.

Tellmark Tab, in corner of sheet, makes it easy to tell the size without removing sheet from shelf.

Inspected 28 times during manufacture. Samples are tested weekly to check quality maintenance.

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### WHAT SERVICE IT WILL GIVE

*Breaking strength:* Sheet fabric will withstand a pull of 82 pounds lengthwise, 77 pounds crosswise. (Average figures.)

*Shrinkage tests* made on the rotary ironer basis show approximately 5% lengthwise and none crosswise.

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This type of sheet is generally considered the most serviceable, longest-wearing sheet that can be bought, regardless of price. It has been tested in 200 regular commercial launderings—equivalent to about eight years' washing in the average home where sheets are washed every two weeks.

Because of its relatively heavier weight, the sheet has less tendency to wrinkle.

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